

Amendments to the Drawings:

The attached sheets of drawings (FIGS. 1 and 2, 2 sheets) hereby replace the original sheets of drawings (FIGS. 1 and 2, 2 sheets).

REMARKS

Pending Claims:

Claims 1 to 10 are pending. Claims 1 and 6 have been amended and constitute no new matter, support for which can be found in the specification and drawings.

Objections to the Drawings:

The drawings are objected to because the lines, numbers and letters were not uniformly thick and well defined and specifically because of poor line quality as indicated on Form PTO-948. The attached sheet of drawings (FIGS. 1 and 2, 2 sheets) hereby replaces the original sheet of drawings (FIGS. 1 and 2, 2 sheets) to correct these deficiencies.

Objections to the Specification:

The specification is objected to because the copending application serial number was not supplied. The specification has been amended to include this serial number.

Terminal Disclaimer:

Claims 1, 2, 4, 5, 6, 7, 9 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 5 of U.S. Patent No. 6,723,283 to Ghelli.

A Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) is enclosed herewith.

Claims 1 to 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 6 of copending application U.S. Serial No. 10/804,583 to Maianti et al.

A Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) is enclosed herewith.

Claims 1 to 10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 10 of copending application U.S. Serial No. 10/614,722 to Maianti et al.

A Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) is enclosed herewith.

Rejections under 35 U.S.C. § 102:

Claims 1, 2, 4, 6, 7 and 9 have been rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,770,149 to Raible. Applicants respectfully traverse this rejection of the claims.

Although Applicants disagree with the Examiner, the claims have been amended to clarify the subject matter of the claims. Claim 1 has been amended to recite that the heat exchanger includes “the blood inlet being located below the blood outlet to define a blood flow path from a bottom of the heat exchanger to a top of the heat exchanger.” Raible does not teach nor suggest a heat exchanger having a blood inlet being located below a blood outlet to define a blood flow path from a bottom of the heat exchanger to a top of the heat exchanger. Therefore Applicants respectfully request that the rejection of claim 1 be withdrawn. Claims 2 to 5 depend from claim 1 and thus add further limitations to claim 1. Therefore Applicants believe claims 2 and 4 are also allowable and respectfully request that the Examiner withdraw the rejection of claims 2 and 4.

Claim 6 has been amended to recite that the housing includes a top portion defining the blood reservoir and a bottom portion defining the blood pump. Raible does not teach nor suggest a housing that includes a top portion defining the blood reservoir and a bottom portion defining the blood pump. Therefore Applicants respectfully request that the rejection of claim 6 be withdrawn. Claims 7 to 10 depend from claim 6 and thus add further limitations to claim 6. Therefore Applicants believe claims 7 and 9 are also allowable and respectfully request that the Examiner withdraw the rejection of claims 7 and 9.

Rejections under 35 U.S.C. § 103:

Claims 3 and 8 have been rejected under 35 U.S.C. § 103(a) as being obvious over Raible in view of U.S. Patent No. 5,924,848 to Izraelev. Applicants respectfully traverse this rejection of the claims.

Claim 3 depends from currently amended claim 1 and claim 8 depends from currently amended claim 6 which Applicants believe are allowable for at least the reasons stated above. Since Izraelev does not correct the deficiencies stated above with respect to Raible and since claim 3 adds further limitations to claim 1 and claim 8 adds further limitations to claim 6, Applicants believe that claims 3 and 8 are allowable.

Claims 5 and 10 have been rejected under 35 U.S.C. § 103(a) as being obvious over Raible in view of U.S. Patent No. 6,306,346 to Lindsay. Applicants respectfully traverse this rejection of the claims.

Claim 5 depends from currently amended claim 1 and claim 10 depends from currently amended claim 6 which Applicants believe are allowable for at least the reasons stated above. Since Lindsay does not correct the deficiencies stated above with respect to Raible and since claim 5 adds further limitations to

claim 1 and claim 10 adds further limitations to claim 6, Applicants believe that claims 5 and 10 are allowable.

Conclusion

In view of Applicants' amendments and remarks, the claims are believed to be in condition for allowance. Reconsideration, withdrawal of the rejections, and passage of the case to issue is respectfully requested.

If any additional fees are due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 16-2312. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our deposit account.

Respectfully submitted,

Date: November 1, 2006

By 

Customer No. 009561

Terry L. Wiles (29,989)

Patrick J. O'Connell (33,984)

POPOVICH, WILES & O'CONNELL, P.A.

650 Third Avenue South, Suite 600

Minneapolis, MN 55402-1911

Telephone: (612) 334-8989

Attorneys for Applicants